



BLM RENEWABLE ENERGY SUMMIT

Transmission Panel

Kip Sikes

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Las Vegas, NV

Birth of a Transmission Project

- when is it real?

- Under the Federal Regulatory Energy Commission jurisdictional Open Access Transmission Tariff (OATT), Transmission Providers must plan for expansion of the transmission grid for both local and wholesale/interstate needs.
- When a customer makes a request for service – generator or load, we are required to construct and build the transmission to deliver.
- Part of the decision process is when can it be in service, how much capacity, and what will it cost?
- Specific timelines for study processes per the OATT
- Denial of service results in no commercial access, requires other options

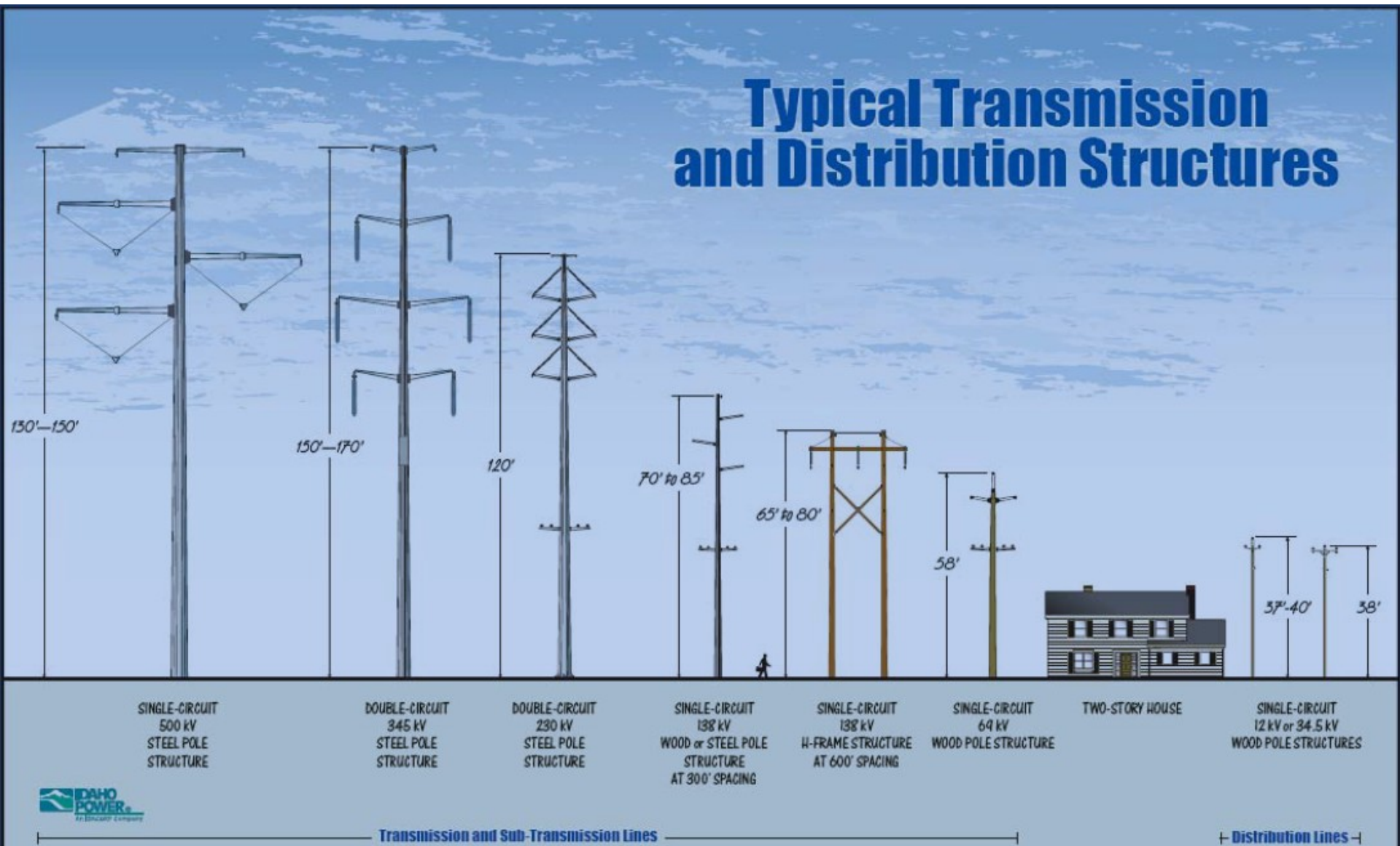
When are Customers Real?

Total Idaho Power Generation Interconnection Queue Applications

Sum of Max	Fuel Type															
County	Biogas	Biomass	CCCT	Coal	Cogen	CT	Diesel	Gas	Geothermal	Hydro	Landfill	Solar	Steam	Wind	Wood	Grand Total
Ada	1					13	200	105	1,260		124	3			100	100
Baker											3				743	1,706
Bannock									0							746
Bingham															108	0
Blaine									50							108
Boise		13														50
Canyon	280	3				20		2,244			3					13
Canyon		5														2,550
Cassia							118								283	5
Elko									95							401
Elmore	206		1,312	1,500		340		6,702		15		10	125	237		95
Gem					15	340		975	4						18	10,447
Gooding	275	12			1		84			0						1,351
Harney					10											372
Jerome	6	6		725	1		62			0						10
Lemhi										1						801
Lincoln	275	5														1
Malheur								1,065				20		9		289
Malheur									36				10			1,095
Minidoka	215	0					115									36
Minidoka		3														330
Owyhee							3					10		251		3
Payette	875		1,606				28	6,500								264
Power	3,133													90		9,009
Twin Falls	18	3					28	100	100	133				524		3,223
Union														450		907
Union & Baker														401		450
Wallowa														252		401
Washington	275															252
White Pine				1,070												275
Grand Total	5,558	1	51	2,918	3,295	60	880	543	18,846	284	279	3	40	125	3,457	36,358

What Does It Look Like?

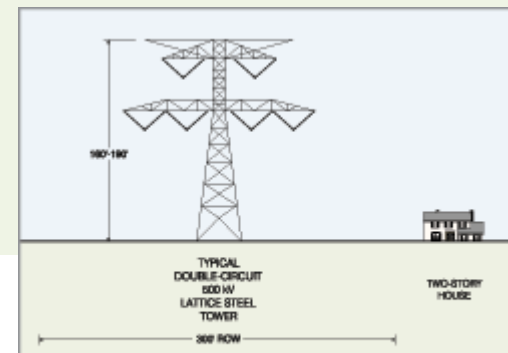
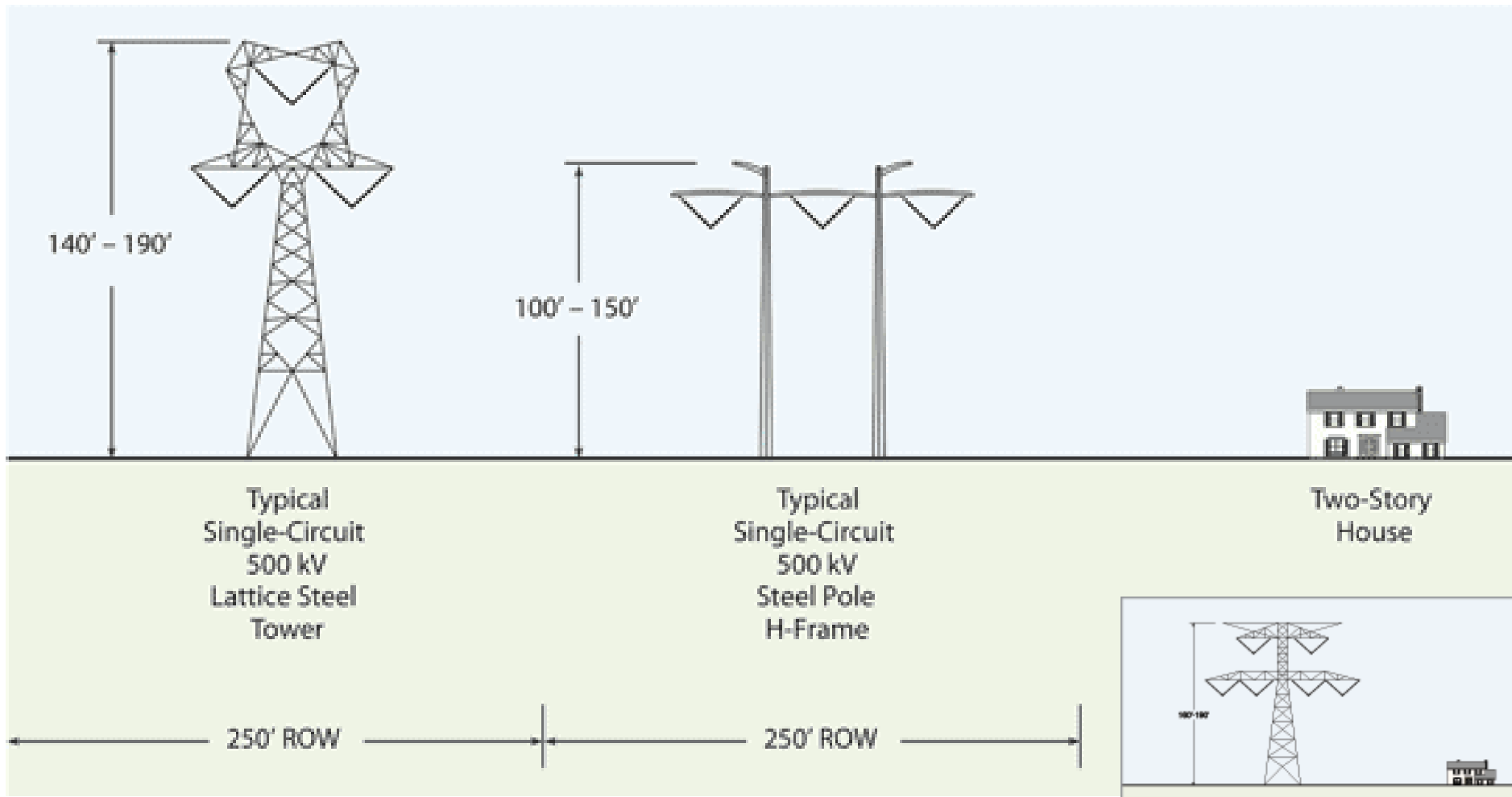
Typical Transmission and Distribution Structures



Transmission and Sub-Transmission Lines

Distribution Lines

Typical Structure Types



500 kV double circuit steel lattice tower

Note: Heights may vary due to terrain and engineering constraints.
Other tower types may be used based on local circumstances.

Transmission Constraints

- How Reliability Works

Path Map

Updated July 6, 2007

POR_POB

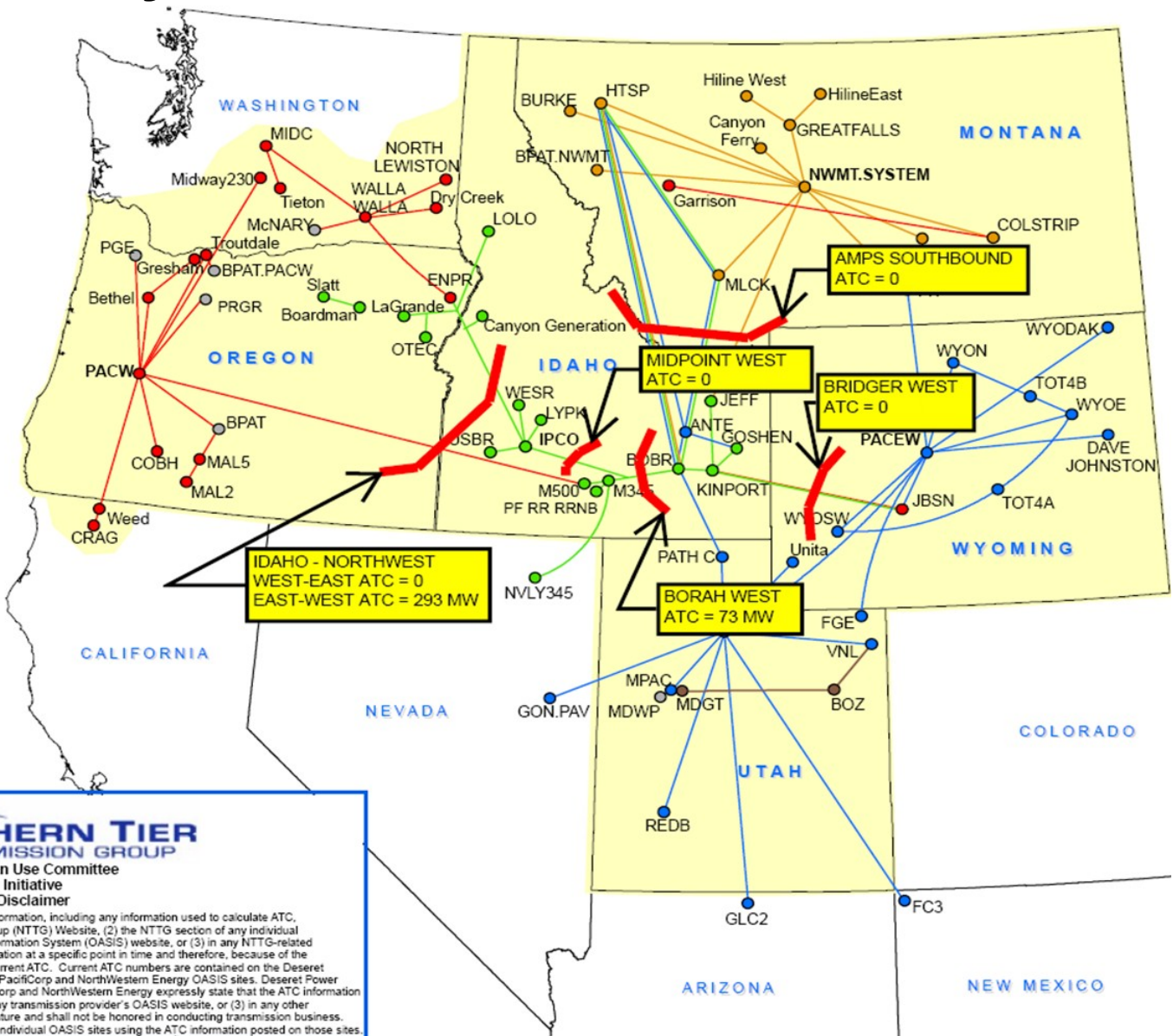
Owner

- Deseret
- Idaho
- NorthWestern
- PacifiCorp East
- PacifiCorp West

Paths

Owner

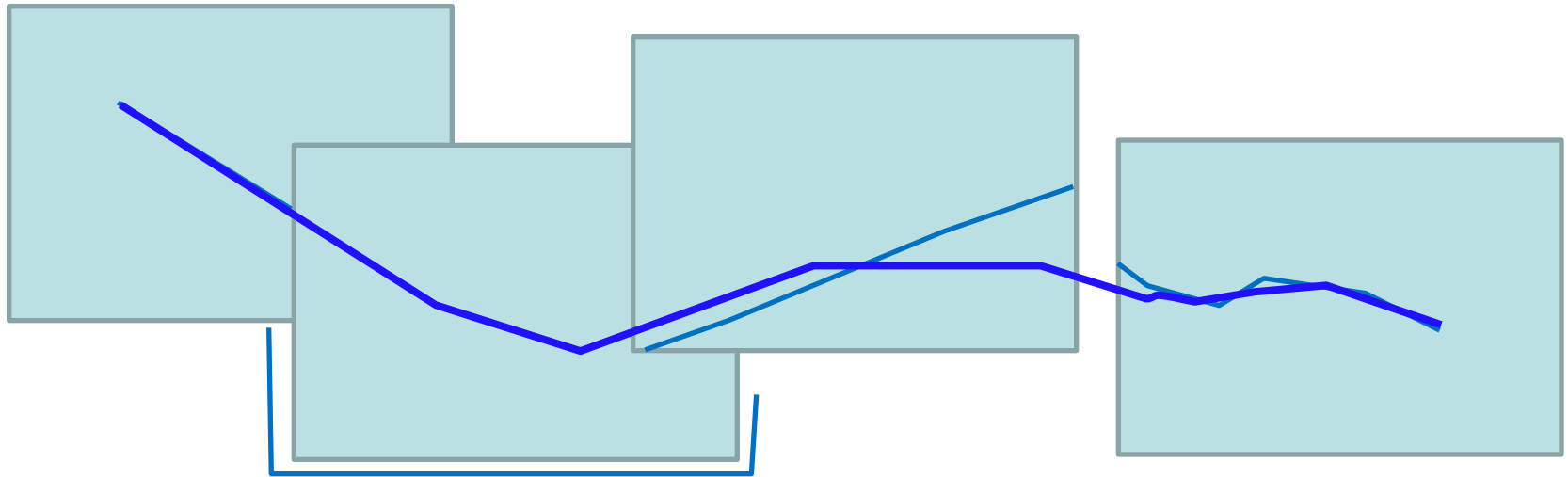
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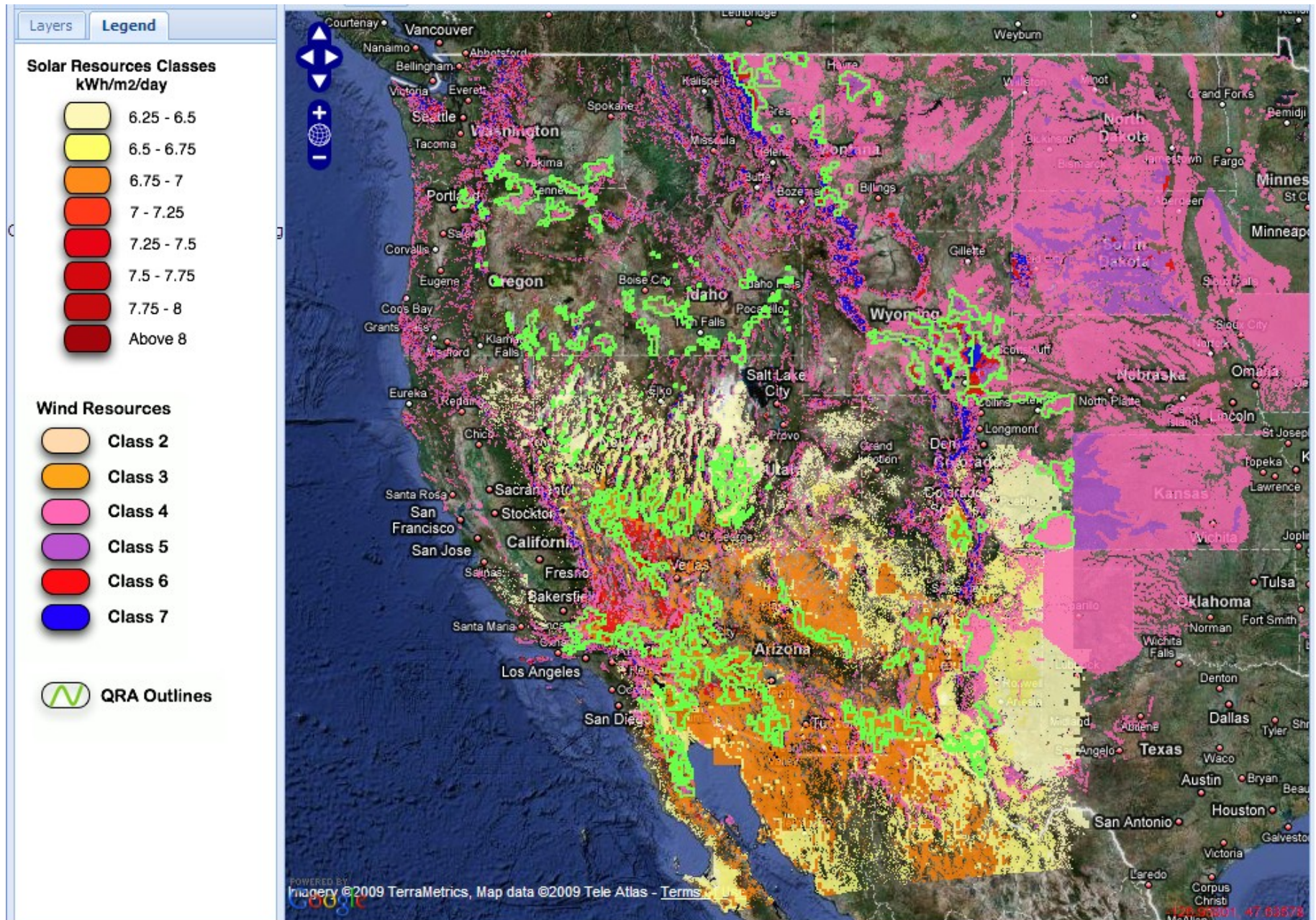
All ATC (Available Transmission Capacity) related information, including any information used to calculate ATC, contained on (1) the Northern Tier Transmission Group (NTTG) Website, (2) the NTTG section of any individual transmission provider's Open Access Same-time Information System (OASIS) website, or (3) in any NTTG-related electronic or paper documentation represents information at a specific point in time and therefore, because of the dynamic nature of ATC, should not be relied on as current ATC. Current ATC numbers are contained on the Deseret Power Electric Cooperative, Idaho Power Company, PacifiCorp and NorthWestern Energy OASIS sites. Deseret Power Electric Cooperative, Idaho Power Company, PacifiCorp and NorthWestern Energy expressly state that the ATC information on the (1) NTTG Website, (2) the NTTG section of any transmission provider's OASIS website, or (3) in any other non-OASIS documentation is only informational in nature and shall not be honored in conducting transmission business. All transmission business shall be conducted on the individual OASIS sites using the ATC information posted on those sites.

Linear Feature Permitting

- Minimize impacts for total project, not only locally
- Things change during a project's life (if it takes too long)
- Public/Private lands issues – need alignments to match (WWC example)

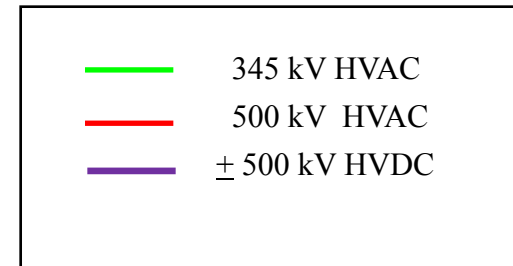


Western Renewable Energy Zones



Western Transmission Grid

Proposed Transmission Projects By Voltage Class



Renewable resource integration issues

- Capacity
- Operation and intermittency
- Cumulative impacts/connected actions

Public Process Experience



- Don't show up with “the line” on the map – “hybrid” scoping:
 - Establish screening/alternative selection criteria
 - Mapping participation to develop acceptable alternatives
 - Promote “Proposed Action” + alternatives for detailed analysis
- Manage expectations and timelines
 - Project teams with project manager
 - NIMBY engagement, agree to accept process outcomes